

ABSTRACT

The goal to study hypernuclear systems with high resolution has been pursued in several Laboratories for many years due to the information on the spin dependence of the effective Λ -N interaction that can be obtained from the energy splitting of hypernuclear spin doublets. At the moment only the electromagnetic production of hypernuclei with electron beam of CEBAF quality together with high resolution spectrometers to detect diffracted electrons and produced kaons can afford the possibility to obtain high resolution data (of the order of 100 keV) on hypernuclear spectra.

A high resolution, short orbit spectrometer, as MPS, in combination with one of the HRS with the addition of forward angle capability obtained with a pair of septum magnets could made the CEBAF Hall A the unique facility where this program can become operative.

Physics motivations and a first experimental program on this subject are presented as part of a physics program that can be done in Hall A if the addition of a third, short path-high resolution magnetic arm is approved.